



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/694,202	10/27/2003	Marlow C. Jordahl		3856

27034 7590 08/23/2005

NEAL O. WILLMANN  
P.O. BOX 42512  
CINCINNATI, OH 45242

EXAMINER
----------

VERBITSKY, GAIL KAPLAN

ART UNIT	PAPER NUMBER
----------	--------------

2859

DATE MAILED: 08/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/694,202

Applicant(s)

JORDAHL, MARLOW C.

Examiner

Gail Verbitsky

Art Unit

2859

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 July 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 10-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 10-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Claim Objections***

1. Claim 10 is objected to because of the following informalities: Perhaps applicant should insert –located—after “temperature sensing means” in line 4 in order to clearly describe the invention. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 10, 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hutchinson (U.S. 6393212) in view of Starner et al. (U.S. 6382272) [hereinafter Starner].

Hutchinson discloses a device/ system/ boiler (steam generator/ water heater) 10 having a heater 15 inside and a heating medium (water/ steam). The boiler has a temperature sensor 94 to control the heater temperature. When the temperature is beyond the predetermined level, a microprocessor shuts the system. Hutchinson states that the heater surface is susceptible to build-up of calcium (accumulation of scale) on its surface.

Although Hutchinson states that the walls of the boiler are susceptible to build-up/ accumulation of scale, Hutchinson does not explicitly teach to detect the build-up/ accumulation (altered state).

Starner discloses in Fig. 4 a device in the field of applicant's endeavor comprising a temperature sensor (thermocouple) 52 within a tube and thermocouple's leads (signal means) also at least partially located within the tube and providing a temperature indicative signal to a control device (fouling calculation). This signal, along with signals from other temperature sensors is indicative of a temperature, and thus, any temperature change indicative of an altered state (fouling/ build-up, accumulation of scale) to, inherently, alert or notify the operator of controlling device.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device disclosed by Hutchinson, so as to measure temperature profile of the tubes, as taught by Starner, so as to use the temperature sensor with the leads (signal means) within the tube and use the data not only for sensing the temperature within the tube, but also for determining a fouling (accumulation/ build-up/ deposit) in the tube, so as to allow the operator to take necessary actions to minimize the accumulation of scale, in order to protect the device from damage.

4. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hutchinson and Starner as applied to claims 10, 12-14 above, and further in view of Witt et al. (U.S. 6428627) [hereinafter Witt].

Hutchinson and Starner disclose the device as stated above in paragraph 3.

Art Unit: 2859

They do not teach that the device can be a dishwasher, as stated in claim 11.

Witt states that a heater tube to a dishwasher is susceptible to mineral build-up causing failure of a heating element.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device disclosed by Hutchinson and Starner, so as to measure temperature profile of the tube of the heater being a part of the dishwasher, as taught by Witt, so as to determine if there is a temperature related accumulation (build-up/ deposit), because heaters of dishwashers are susceptible to build-up which can cause failure of the heater.

### ***Response to Arguments***

5. Applicant's arguments filed on July 06, 2005 have been fully considered but they are not moot in view of new ground of rejection necessitated by the present amendment.

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art cited in the PTO-892 and not mentioned above disclose related devices and methods.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gail Verbitsky whose telephone number is 571/ 272-2253. The examiner can normally be reached on 7:30 to 4:00 ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego Gutierrez can be reached on 571/ 272-2245. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2859

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

GKV

Gail Verbitsky

Primary Patent Examiner, TC 2800



August 19, 2005